

Student News, Student Views

Vol. 9 August 24, 2006



Student News

Welcome	1
Reminders for Year-Round & Departing Students	1
Offsite Students	1
Attention Post Baccalaureate Students	2
Science in the National Interest — CD	2
SA Survey	3
New Technology Report	4
MSTea & Cookies	4
Pictures - Student Orientations, Tours, and Programs	5
Pictures - Various SA Activities And Trips	6
Pictures - Symposium 2006	7
Security	8
Calendar of Events	8
Safety First	9
Community Corner	11
Hiking Trails	11
NM Trivia	11
Salsa Classes	12
Your Ticket to the Movies	12
Summer Concert Series	12

Student Contact Information

Carole Rutten
Team Leader for Student Programs
crutten@lanl.gov
505-665-5194

Brenda Montoya
HS-Coop, UGS, GRA Program Coordinator
bmontoya@lanl.gov
505-667-4866

Carolyn Ramsey
Student Program Administrator
cramsey@lanl.gov
505-606-0333

Students —

You can see by this newsletter that things are slowing down a bit. That doesn't mean that we don't have much going on it simply means that we are at the point where we are winding down the fiscal year and are gearing up for process improvements and activities for the new FY. You can see this taking shape by the brief survey from the Students' Association. Please respond to them and let them know the types of activities you would like to participate in. SA will be going through several planning meetings to outline fall and summer activities. What is most fun about this newsletter are the many photos that were taken at the various activities

this summer between the many breakfast seminars, tours, and the all student and mentor picnic.
Enjoy!

Carole

OFF-SITE STUDENTS

An Off-site Student is defined as a student:

- who is actively participating in one of Los Alamos National Laboratory's Student Programs as a Full-time, Part-time, or casual employee
- whose primary work location is not on Los Alamos National Laboratory property

Off-site requests for students whose mentors want them to work at their universities during the academic year must be submitted to the Student and Postdoc Office at least 2 weeks prior to the anticipated off-site start date. The following website provides guidance on the off-site process: <http://int.lanl.gov/education/undergrad/offsite.shtml>.

REMINDERS FOR YEAR-ROUND AND DEPARTING STUDENTS

1. Undergraduate students are required to maintain a minimum of 9 credit hours (or equivalent) each semester to remain eligible to participate in the Laboratory's Student Internship Program.
2. Graduate students are required to maintain a minimum of 6 credit hours (or equivalent) each semester to remain eligible to participate in the Laboratory's Student Internship Program. Graduate students who have completed their course work are eligible to work full-time during the academic year providing they submit proof of enrollment showing thesis/dissertation credit.
3. **Exceptions** to the work time or credit hour requirements will be addressed on an individual basis by the Education and Postdoc Programs Staff. The exception process can be found at: <http://int.lanl.gov/education/spac/exc.shtml>. Students will not be extended in FT status unless an exception has been approved by the Education and Postdoc Programs Office.
4. Students participating in the Electro-Mechanical Technology Program, Materials Science Technician Program, Machinist Apprenticeship Program, CFO MBA program, Post Baccalaureate, Post Master's Degree programs and GRA students working on a thesis or dissertation are excluded from the 30 hour per week work restriction.



ATTENTION POST BACCALAUREATE STUDENTS

Please remember the post baccalaureate category of the UGS program offers college graduates the opportunity to participate in the UGS program after graduation. This category applies to those students who have been awarded a bachelor's degree but have not yet been accepted and enrolled in a graduate program. Post baccalaureate students may remain in this category for up to one year.

- Students not interested in pursuing graduate school are limited to a one-year appointment.
- Students interested in graduate school should use this one year appointment to prepare for graduate school acceptance (i.e.: GRE/GMAT exams, applications, etc.) A student may move into GRA status when documentation is provided indicating acceptance into a graduate program.

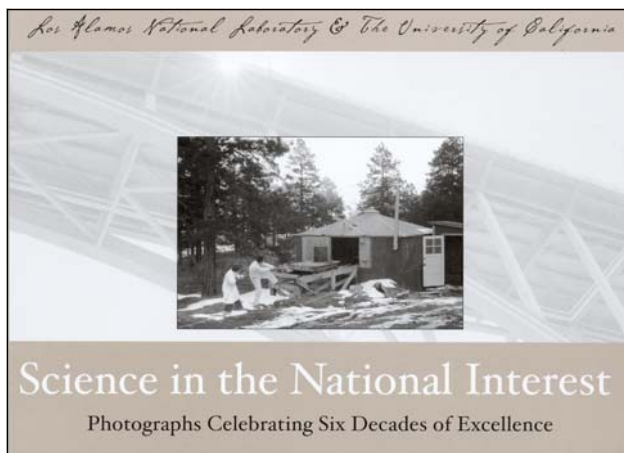
Students who have not been accepted in a Graduate program at the end of their one-year appointment will not be eligible to have their appointment extended.

Contact Brenda Montoya at 667-4866 (bmontoya@lanl.gov) if you have questions regarding the post baccalaureate program.

"Science in the National Interest – Photographs Celebrating Six Decades of Excellence"

CD is Available to all Students

Students wanting a copy of the above mentioned CD can contact the STB-EPDO Office. You can either come by Canyon School and pick one up, or let us know and we will mail you one through inter-office mail. The CD covers six decades of the Laboratory's history, and pictures accomplishments and events made possible by Laboratory employees over the years. A picture of the cover is shown below. Contact Carolyn Ramsey (cramsey@lanl.gov) at 606-0333 if you have not received one and would like for us to send it to you.



**Make Your Voice Heard
and Make a Difference!**



LANL's Students' Association is YOUR organization!
What are your expectations? What should be the focus of SA?
Tell Us!

**Each person submitting a completed survey response
will be entered into a prize drawing!**

- 1)** Please share your opinions about the quantity, quality, and diversity of activities for LANL students sponsored by the Students' Association.
- 2)** What things should SA focus on to improve the student experience at LANL? (Consider policies, outreach, professional development, philanthropy, etc.)
- 3)** How active have you been with SA during your appointment at LANL? What would help increase your participation?
- 4)** What events or activities would you like to see SA sponsor?
- 5)** Add any comments or suggestions that could help SA develop in a positive way.

**Submit your answers to these brief questions to Emily Schultz,
SA Secretary, at eschultz@lanl.gov or mail to MS D452
by September 1, 2006.**

Survey answers will be compiled and names removed to maintain anonymity.



From the "Shoe Phone" to the Possible "Tooth Phone"
Mike Grimler Discusses the New Technology
Available on the Market



About 24 students attended the "New Consumer Electronic Products. . . New Information Security Concerns" presentation by Mike Grimler, on August 16th at the MSL auditorium. Mike is the team leader of Protective Force and Oversight and Special Projects Security Support (SEC-PS). The presentation started out with a Spy Technology video, "Modern Marvels", produced by the History Channel. After that, Mike showed a powerpoint presentation describing all kinds of new products with several different types of technology all incorporated into one specific product. He stated that cell phones being taken into security areas are the number one security infraction here at the Lab. The cell phone has become so commonplace, that individuals forget they have them on their person when they enter a secured area. Because cell phones can now incorporate cameras, video capability, and other technology, it is important that individuals are aware of the rules at the Lab for taking them into secured areas. Other products that are now on the market include Zippo lighters which include cameras, tapeless video cameras, digital camera binoculars, digital cameras with USB storage devices, and many varieties of wrist watches that can also have cameras, USB ports, and various other recording devices. Work is being conducted on the development of a phone that could be embedded in a tooth. The sound is would be conducted via the bone structure in the inner ear.

There are several varieties of "highlighter" pens that can also be used as a scanner, palm pilot, and even contain translating modules. An interesting point that Mike brought up is that Samsung has banned their own cell phones that have large data storage capacities (via USB connection to PCs) from their plant in order to protect their company's proprietary information and trade secrets.

All of this information is of great importance to the Laboratory. We all need to be aware of the products that are on the market because we are often required to escort an individual into a secured area. The technology is constantly getting smaller, cheaper, faster, and has much greater capacity. All of this may have been "laughable" when Agent Maxwell Smart on the TV series "Get Smart" had a shoe phone, or when James Bond was supplied all sorts of "spy" gadgets – but now it's a reality, and we all need to be aware that these "gadgets" are no longer just for spies. They are available on the open market – and many are not that expensive. We've gone from a shoe phone to a "Space Cube Computer" (with multiple ports) in a very short time. It is important to be aware of these new products and how they can affect the work we do here at the Laboratory.

MSTea and Cookies

What: Come talk Materials Science with your peers and enjoy tea and cookies! This is an excellent opportunity to meet with other students, postdocs, and researchers to discuss data, network, and eat tasty cookies and drink tea! Social gatherings alternate with informal speakers, who range from students sharing their results to upper management discussing their outlook on LANL's future. In this relaxed atmosphere, discussions on a wide variety of scientific, as well as, non-technical topics can give new perspective on issues at the lab. Hope to see you there!

Calendar with future scheduled events: <http://www.mst.lanl.gov/internal/calendar.shtml> . Contact: Heather Volz, hvolz@lanl.gov or 5-4370. Sponsored by MST and MPA Divisions

COMING SOON:

- August 30 — Rangachary (Mukund) Mukundan (Material Physics and Applications -11)
- September 6 — Social Gathering
- September 13 — Woong Choi (Material Physics and Applications—Superconductivity Technology Center)



New Student Orientation



New Student Orientation



New Student Orientation



Electro Mechanical Training Program Student



Wellness Center Breakfast

Student Orientations, Tours and Programs



Various SA Activities and Trips

Headphone Dance Party



Bandalier Tour



Movie Night



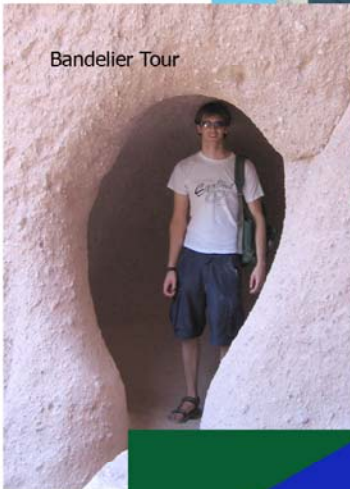
SPAC Meeting



SULI Students



Bandalier Tour



Jemez Geology Tour



2006-07 SA Executive Committee



SA Picnic

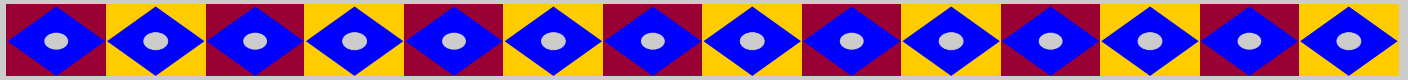




Symposium 2006

August 2-3 UNM-LA





SECURITY

Security Clearances and Departure Processing

The Department of Energy (DOE) requires that a worker's clearance be terminated when he or she terminates from the Laboratory. However, visiting the SEC-PSS6 Clearance Processing Office well in advance of the change in employment status will ensure that the worker and the laboratory comply with DOE clearance requirements.

SEC-PSS6 may request that DOE keep clearances active for a period of time, depending on the circumstances, for cases such as a:

- LANS retiree who expects to work again at the Laboratory in another employment category;
- Worker who will go on LOA;
- Student who will go on casual status; or
- Worker who expects to transfer to another company at LANL

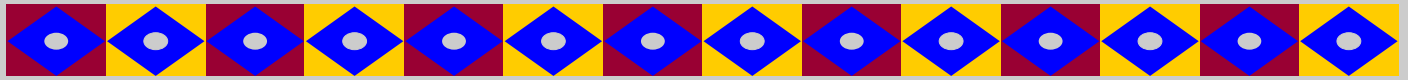
SEC-PSSA's ability to retain a worker's clearance depends on advanced notice. Several other employee actions may be required and are handled on a case-by-case basis. Following the departure process ensures an easy transition, including clearance retention when authorized, if a worker changes his or her employment status.

For more information on Security Clearances and Departure Processing contact the Badge Office at 667-6901 (badge@lanl.gov), the SEC-PSS6 Clearance Processing Office at 667-7253 (clearance@lanl.gov), the security Help Desk at 665-2002 (security@lanl.gov), or the Human Resources Termination Website: <http://int.lanl.gov/worklife/benefits/lifeevents/termination.shtml>.

Calendar of Events

(LANL Student Activities highlighted in red)

9/01– 9/31 Farmer's Market begins (every Thurs. thru October)
 9/01– 9/31 Bandelier 90th Anniversary Event: Ranger guided Walks on the Mail Loop Trail
 8/23 MSTea & Cookies 4:30 p.m. Social Gathering
 8/28 Lansce Tour 1:00 p.m.
 8/29 Lansce Tour 1:00 p.m.
 8/30 MSTea & Cookies 4:30 p.m. Rangachary (Mukund) Mukundan (MPA-11)
 9/06 MSTea & Cookies 4:30 p.m. Social Gathering
 9/13 MSTea & Cookies 4:30 p.m. Woong Choi (MPA-STC)
 9/15 - 9/16 Los Alamos Little Theater Presents 8X10 (Eight 10-min. plays, each by a different director and author)



SAFETY FIRST

Tips for Driving in Rain

With all the rain we have recently experienced, we thought it would be good to include some tips for driving in the rain in this issue of SN,SV. Be aware of the conditions around you as you travel, and make sure your car is in good condition to make the trip. Also be aware that driving in these conditions can be very tiring and stressful, so make sure you are rested before you begin your trip. This information came from Smart Motorist. Be sure to check out their website (<http://www.smartmotorist.com/rai/rai.htm>) for more detailed information if you are planning on making a trip in the near future where you will be anticipating heavy rains.

Rainy driving tips - Smart Motorist offers the following suggestions for safer driving in wet weather. In stormy conditions, it is more difficult to see other vehicles, road signs and the road itself. It is critical to make sure you can see and be seen.

First and foremost: slow down! It takes longer to stop or adjust in wet weather.

Stay toward the middle lanes - water tends to pool in the outside lanes.

Maintain proper following distance (3 Second Rule). This needs to be increased in wet weather.

Drive in the tracks of a car ahead of you.

Don't follow large trucks or busses too closely. The spray created by their large tires reduces your vision.

Take care when passing them as well; if you must pass, do so quickly and safely.

Be more alert when driving in wet or slippery conditions. Watch out for brake lights in front of you.

Avoid using your brakes; if possible, take your foot off the accelerator to slow down.

Turn your headlights on even in a light rain, or in gloomy, foggy or overcast conditions. Not only do they help you see the road, but they'll help other drivers see you. If your car has daytime running lights you still should put them on, so vehicles behind you can see you better.

Before it starts to rain, replace old or brittle wipers.

Avoid off-road driving: it's hard to judge the actual depth of puddles and you can easily become stuck, even in an SUV.

Never drive beyond the limits of visibility. At night rainy roads become especially treacherous. The glare of oncoming lights, amplified by the rain on your windscreen, can cause temporary loss of visibility while substantially increasing driver fatigue. In rainy conditions pedestrians, livestock, and wildlife are extremely hard to spot and even harder to avoid.

Never drive through moving water if you can't see the ground through it; your car could be swept off the road.

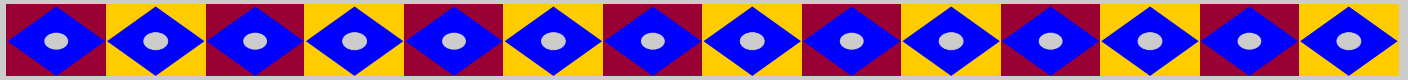
When driving through a puddle of uncertain depth, go slow. If it's deeper than the bottom of your doors, turn around and find another route. Deep water can cause serious damage to a modern car's electrical system.

Avoid splashing pedestrians.

If possible, stay off the road during heavy thunderstorms. Large flashes of lightning can temporarily blind and disorient drivers, and the accompanying high winds and heavy rain can create deadly driving conditions.

Before you go - Wet-weather driving demands gentle use of all the main controls - steering, clutch, brake and accelerator - and a larger allowance for errors and emergencies. When you begin a journey in rain, your shoes will be wet and liable to slip off the pedals. Scuff the soles on the rubber matting or carpeting of the car before you start the engine. All motorists should regularly check that their headlights, tail lights, brake lights and turn signals are working properly.

How are your tires? - Check your tires on a regular basis. Bald tires significantly reduce your traction on wet roadways, and offer little resistance to hydroplaning. When your tires run over water, the water is displaced and it needs somewhere to go quickly. The best place is between the treads of your tires. If your tires are bald, the water has no place to go and you end up riding on a layer of water, like a boat. (See **Hydroplaning**, next page.)



SAFETY FIRST — Continued

Turn on your wipers - Replace your wipers regularly, at least once a year. Wiper blades in bad condition don't clear water from the windshield very well and distort your view. Older vehicles may need to have the whole wiper arm replaced. The arms bend over time and sometimes can't keep enough downward pressure to clear the windshield, even with new blades installed. Wipers will often clear light rain from the windshield with a few sweeps, then run on an almost-dry screen and leave smears of drying dirt. Don't be afraid to use the windshield washers liberally: the fluid is cheap (99 cents a gallon) and the safety benefit is high. Carry extra during the winter.

Heavy rain - Heavy rain can overload the wiper blades, allowing an almost continuous sheet of water to flow over the screen. When visibility is so limited that the edges of the road or other vehicles cannot be seen at a safe distance, it is time to pull over and wait for the rain to ease up. It is best to stop at rest areas or other protected areas. If the roadside is your only option, pull off as far as possible, preferably past the end of a guard rail, and wait until the storm passes, seldom more than a few minutes. Keep your headlights on and turn on emergency flashers to alert other drivers.

Foggy windows - Rain or high humidity can quickly cause windows to mist up inside the car. In a car equipped with air conditioning, turn up the heat and direct the airflow to your defrosters with the AC switch engaged.

(Many cars automatically engage the AC when switched to the defrost mode.) In a car without AC the procedure is the same, but you may need to open your side windows to get the air moving. Drivers should regularly clean their windshield and windows, both on the inside and outside, to help them see in good and bad weather. Smokers need to take extra care to make sure their interior windows are clear of a buildup of smoke residue.

Handling a skid - Losing control of your car on wet pavement is a frightening experience. You can prevent skids by driving slowly and carefully, especially on curves. Brake before entering the curves. Steer and brake with a light touch. If you find yourself in a skid, remain calm, ease your foot off the gas, and carefully steer in the direction you want the front of the car to go. This procedure, known as "steering into the skid," will bring the back end of your car in line with the front. For cars without anti-lock brakes, avoid using your brakes. If your car has ABS, brake firmly as you "steer into the skid."

What to do if you stall in deep water - If possible, have someone pull your vehicle out using a tow rope or cable winch. It may be possible to drive a manual transmission car out using the starter motor.

Check your brakes - If you successfully pass through a deep water hazard, test your brakes. They may be saturated, and only driving very slowly and braking lightly at the same time will generate enough heat to dry them out. Be sure they are pulling evenly on all wheels before building up speed again.

Hydroplaning - Hydroplaning is the result of your tires moving quickly across a wet surface - so fast that they do not have sufficient time to channel that moisture away from the center of the tire. The result is that the tire is lifted by the water away from the road, losing all traction. Of course the word 'quickly' is a relative term. Tread design, tread depth, weight of your vehicle, tire pressure, depth of water and even the consistency of that water - (whether it is highly aerated or not, for example) - all play a part in determining at what speed the tire will begin to hydroplane.

How can you tell that you're hydroplaning? It is often hard to tell when you are hydroplaning. The rear end of your vehicle may feel a little squirrely (loose, giving you the sensation that it has moved to one side or the other), especially in a high crosswind. The steering may also suddenly feel loose or little too easy. Watch the road ahead for standing or running water. You can also pay attention to the spray being kicked up by the cars in front. If it suddenly increases it's possible that the driver has hit a patch of water that could cause you to hydroplane.

What to do if you start to hydroplane - There are two absolutely essential no-no's to remember should you experience the beginning of hydroplaning:

- Do not apply your brakes
- Do not turn your steering wheel

If you find yourself hydroplaning, do not brake or turn suddenly. This could throw your car into a skid. Hold the wheel firmly and don't steer in any other direction but straight ahead. Ease your foot off the gas until the car slows and your steering returns to normal. If you need to brake, do it gently with light pumping actions. If your car has anti-lock brakes, then brake normally; the car's computer will mimic a pumping action, when necessary. If your vehicle's tires are still in partial contact with the road surface, you should be able to regain control of the vehicle in the same way that you would on snow or ice.

Community Corner



More Hiking Trails in the Los Alamos Area

Here's some more hiking ideas for the Los Alamos area. Remember to always tell someone where you are going. Take snacks, sunscreen, and plenty of water in case of emergency, and be prepared for changes in the weather. Also, watch for snakes sunning themselves. Be aware lightning and monsoon season is here. More info can be found on this in the June 15th edition of the Student News Student Views (Vol. 4) To see previous trails listed in this section of the newsletter, see the past issues of the Student News, Student Views newsletters. More info on the hiking trails can be found at <http://www.losalamos.com/hiking/>.

WHITE ROCK and the RIO GRANDE

River Trail: day hike - 2 mile OW: The River Trail connects the Red and Blue Dot Trails (see vol. 8 of Student News, Student Views). It doesn't really follow the river, but wanders over hill and dale among boulders and cactus. It goes upstream to the county line, with Indian land beyond (private property and they mean it!). Downstream, the trail goes all the way to Frijoles Canyon in Bandelier. Very rough and hard to follow south of Water Canyon. Don't go unless you are really accustomed to this sort of thing. (Rating: Difficult)



Lower Water Canyon: morning hike -- From the SR 4/Pajarito Road intersection in White Rock, go south on SR 4 (toward Bandelier) 2.8 miles. Park your vehicle on the left hand shoulder of the highway. Take the dirt road down into Water Canyon to Gate #5 and follow the road to the end, where the canyon starts cutting down into black basalt. Trails go north and south around the rocky promontories of Water Canyon, but they don't qualify as easy. (Rating: Easy)

Powerline Mesa: morning hike—2 miles OW: From the intersection at SR 4 and Pajarito Road in White rock, drive south (toward Bandelier) 3.3 miles. Park at Gate #4 on the left side of SR 4 and follow the dirt road 2 miles to the rim of White Rock Canyon overlooking the Rio Grande 1000 feet below. Road is level to the powerline, not too steep up to the rim. Joggers run from the big powerline north to Portrillo Canyon (see vol. 8 of Student News, Student Views) on a narrow, rocky little trail. (Rating: Moderate)

New Mexico Trivia (answers on back page)

1. What other states join New Mexico in forming the Four Corners, the only point in the United States where four states meet?
2. What do Kelly, Shakespeare, Steins, Chloride, and Colfax have in common?
3. Why did the Santa Fe *New Mexican* apologize to the Santa Domingo Indian community in 1984?
4. Parts of what 1989 mini-series were filmed in Santa Fe and Angel Fire?
5. What New Mexico mountains provided the rugged terrain for 1981's Charles Bronson/Lee Marvin chase movie *Death Hunt*?
6. Where does Santa Fe rank in age among U.S. capital cities?
7. The flags of what four nations have flown over the Palace of the governors in Santa Fe since it was built in 1609?
8. What are Shalakos?
9. What hotel has a ghost named Rebecca and a mahogany bar once used by Al Capone, and has had Pancho Villa and Judy Garland as guests?
10. What makes it impossible to see the ghost town of Bonito City?

Looking for Activities?

Listed below are some websites to find activities going on in Los Alamos and the surrounding areas.

Los Alamos: <http://visit.losalamos.com/events/>

Santa Fe: <http://santafe.org/calendar/index.html>

Activities throughout New Mexico: <http://www.newmexico.org/event/>

Salsa Classes

!Free Lessons!

Salsa1 (On1): 7:00 – 7:50pm
 Practica: 7:50 – 8:15pm
 Salsa2 (On1): 8:15 – 9:05pm
 Practica: 9:05 – 9:30pm
 Salsa3 (On2): 9:30 – 10:20pm
 Practica: 10:20 – 10:45pm

Join us & learn to Salsa

Classes are scheduled for Wednesday nights at the Los Alamos Community Center. For more information, contact Darrin ddawgncc@comcast.net (661-8599), or Maria at maria_i_p@yahoo.com (663-1047)

New Schedule Starting September 6th:

Salsa1 (On1): 7:00-8:15p.m.
 Practica: 8:15-8:45p.m.
 Salsa2 (On1): 8:45-10:00p.m.
 Practica: 10:00-10:45p.m.

Know students who are not receiving Student News, Student Views? Invite them to contact cramsey@lanl.gov to get on the list serv.

Your ticket to the movies!

The following movies will be showing at the Reel Deal Theatre the week of August 25 thru August 31. After this date, more current information can be found at www.reeldealtheater.com.

Invincible	PG
Prairie Home Companion	PG -13
World Trade Center	PG -13
Scoop	PG -13
Accepted	PG -13
Snakes on a Plane	R

Coming Soon

The Wicker Man
 The Gridiron Gang
 Crank
 The Guardian
 How to Eat Fried Worms



Answers to Trivia Questions

1. Arizona, Colorado, and Utah
2. They are all ghost towns
3. For publishing two photographs of sacred dances, which is against the community's posted policy
4. Lonesome Dove
5. Sandia
6. First
7. Spain, Mexico, the Confederate States of America, and the United States of America
8. Six Zuni gods who bring blessings and goodwill
9. The Lodge at Cloudcroft
10. It is under seventy-five feet of water in Bonto Lake (a dam was constructed by Southern Pacific Railroad in Bonto Canyon)

Los Alamos County Summer Concert Series

ALL SHOWS ARE FREE OF CHARGE AND ARE FRIDAY AT 7:00 PM UNLESS NOTED. BRING YOUR LAWN CHAIRS!

Friday, Aug. 25 Ashley Pond

Asylum Street Spankers (Whacky Neo-Traditional Folk & Early Jazz Acoustic Rock)

Friday, Sept. 1 Ashley Pond

Ginger Leigh (Cabaret/Rock from Austin, TX)

Friday, Sept. 8 Ashley Pond

Phil Brown Band (60's-70's Classic Rock)
 *American Cancer Society's Relay For Life